08 March 2000

VIIRS Unique SRD Version 2 Revisions b & c —List of Changes Since Version Two, Revision a (04 November 1999)

The following is a summary of the changes reflected in these pages.

CCBD 99083

Change para 3.2.1.1.1-7 from: "Valid radiometric earth scene data shall be collected and reported over a ground swath subtending not less than +/- 56 degrees…"
TO: "Valid radiometric earth scene data shall be collected and reported over a ground swath subtending not less than +/- 55.84 degrees…"
Change last sentence from: "The swath width associated with an angular subtense of +/- 56 degrees is approximately 3000 km for a satellite at 833 km altitude." **To:** "The swath width associated with an angular subtense of +/- 55.84 degrees is approximately 3000 km for a satellite at 833 km altitude."

CCBD 99084

Change para 3.2.1.1.1-8 from: "Valid radiometric earth scene data shall be collected and reported over a ground swath subtending not less than +/- 44 degrees…"
TO: "Valid radiometric earth scene data shall be collected and reported over a ground swath subtending not less than +/- 43.62 degrees…"
Change sentence from: "The swath width associated with an angular subtense of +/- 44 degrees is approximately 1700 km for a satellite at 833 km altitude."
TO: " The swath width associated with an angular subtense of +/- 43.62 degrees is approximately 1700 km for a satellite at 833 km altitude."

CCBD 99085

Change VIIRS SRD Para 3.2.1.17-1 **FROM:** Absolute radiometric calibration uncertainty and stability requirements shall be verified by analysis, modeling, and/or simulation. In the next phase of the VIIRS program, satisfaction of absolute radiometric calibration uncertainty requirements against both uniform and structured backgrounds must be established by instrument characterization using National Institute of Standards and Technology (NIST) standards and procedures. **TO:** "Absolute radiometric calibration uncertainty and stability requirements shall be verified by analysis, modeling, and/or simulation for both uniform and structured scenes. In the post-PDR phase of the VIIRS program, satisfaction of absolute radiometric calibration uncertainty requirements against uniform scenes will be established by instrument characterization in conjunction with applicable National Institute of Standards and Technology (NIST) standards and procedures. In situations in which there are no applicable NIST standards and procedures, the contractors should develop suitable standards and procedures following a disciplined, rigorous approach to include a NIST review."

CCBD 00006

Change the following text above the requirements table for Sea Ice Age and Sea Ice Edge Motion (third sentence) **from**: "Sea ice motion is defined as the displacement of a sea

ice edge." **to**: "Sea ice edge motion is defined as the vector displacement per unit time of a sea ice edge. The sea ice edge is defined as the boundary between ice-covered sea water (ice concentration > 0.1 (TBR)) and sea water not covered by ice (ice concentration ≤ 0.1 (TBR)). Sea ice edge motion is a vector defined at each point of this boundary (and only on this boundary) representing the magnitude and direction of the motion of the boundary. This vector is not intended to represent the vector displacement of a given area of the same physical ice, although it may do so coincidentally."

CCBD 00014
In the VIIRS SRD, after section 3.2.1.29, **add**:

3.2.1.30 Mission Reliability
Mission reliability is the probability that the sensor suite shall provide the necessary RDR data to retrieve VIIRS EDR's at threshold performance levels. For EDRs where the contractor proposes to deliver performance below threshold levels, the Mission Reliability shall be judged against the proposed EDR performance level.

SRDV3.2.1.30-1
The sensor suite's mission reliability shall be as specified in the following table at the end of a 7 year on-orbit life and including an 8 year storage period.

EDR Category	Threshold	Objective
Category I (excluding imagery provided by the daytime/nighttime visible band)	.86	TBD
Category II, and imagery provided by the daytime/nighttime visible band.	TBD	TBD
Category III	TBD	TBD